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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,950

03/22/2004

Tooru Arai

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9887

7590

09/27/2004

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EXAMINER

ELLINGTON, ALANDRA

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/805,950

Applicant(s)

ARAI, TOORU

Examiner

Alandra Ellington

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.
2. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.
3. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.
4. The abstract of the disclosure is objected to because it contains legal phraseology such as "comprises" (page 14, line 3). Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nondahl et al (6,504,275) in view of Nakabayashi (4,992,826).
  - a. With respect to Claim 1, Nondahl et al discloses a torque measuring apparatus with a rotor 16 having a hollow body portion on a shaft 18 (col. 3 lines

32-34 {Figs. 1A,1B}), light emitting elements 36,76 disposed on the rotor 16 (col. 3 lines 43-45,50-53, col. 6 lines 39-60 {Fig. 4}), for emitting optical signals based on an output from a torque detection unit arranged on a hollow portion of the hollow body portion (col. 6 lines 39-60), a chassis ({platform supporting electric motor 10 as seen in Fig. 1A}), and a signal receiving unit 40 (col. 3 lines 43-46 {Fig. 2}). However, Nondahl et al does not teach a detachable transparent plate attached to the chassis disposed outside the rotor or the signal receiving unit attached to the chassis.

Nakabayashi teaches an apparatus with light emitting elements 302 disposed on a rotor 301 (col. 11 lines 33-38 {Fig. 5}), a transparent plate 275 attached to a chassis 124 and disposed outside a rotor 301, for allowing the optical signals to pass therethrough (col. 8 lines 21-39), and a signal receiving unit 120,140,240 attached to the chassis 124, for receiving the optical signals via the transparent plate 275 (col. 7 lines 50-68, col. 8 lines 1-48, col. 9 lines 1-20), wherein the transparent plate 275 is detachable from the chassis 124 (col. 8 lines 21-23 {Fig. 2}).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nondahl et al with the teachings of Nakabayashi to include a detachable transparent plate attached to the chassis outside a rotor and a signal receiving unit attached to the chassis for receiving optical signals via the transparent plate for the purpose of controlling the intensity of exposure light

on the photosensitive material while protecting the material from contaminants  
(see *Nakabayashi*, col. 8 lines 1-39, col. 9 lines 10-15, col. 11 lines 34-38).

***Allowable Subject Matter***

7. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The reasons for the indication of allowable subject matter is based on the inclusion of *a sliding mechanism for sliding the transparent plate*.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Lee (5,632,546) discloses a multipurpose projector with detachable projecting unit.
- b. Hazelden (5,369,583) discloses optical torque sensors.
- c. Hulsing, II (4,459,759) discloses an optical sensing apparatus.
- d. Maruyama et al (5,369,322) discloses a position sensor with a laser diode.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 7:30am - 4:00pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ane



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